

DOCUMENT RESUME

ED 144 876

SO 010 316

TITLE National Report on Development of Education, 1974-1976: Malaysia.

INSTITUTION Ministry of Education, Kuala Lumpur (Malaysia).

PUB DATE [77]

NOTE 25p.; Report presented at International Conference on Education (36th, Geneva, Switzerland, August 30-September 8, 1977)

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.

DESCRIPTORS Adult Education; *Comparative Education; Developing Nations; *Educational Administration; *Educational Development; *Educational Finance; Educational Objectives; Educational Practice; Educational Problems; Elementary Secondary Education; *Equal Education; Foreign Countries; Group Unity; Higher Education; Instructional Media; Teacher Education; Vocational Education

IDENTIFIERS *Malaysia

ABSTRACT

Education in Malaysia is discussed in terms of administration, structure, objectives, finances, and problems to be solved. Administration is the responsibility of the federal Ministry of Education in cooperation with individual state directors of education. Formal schooling consists of six years of primary, three years of lower secondary, two years of upper secondary, and two years of post secondary education. Colleges and universities provide up to six additional years. Primary education is free, noncompulsory, and follows a common syllabus. Lower secondary students are exposed to prevocational courses as well as academic subjects. In upper secondary school, students are separated into academic (arts or science) or technical/vocational groups. Bahasa Malaysia is the main language of instruction. Major educational objectives include promotion of cultural and national unity, provision of facilities for increasing enrollments, and correction of imbalance between urban and rural education. Amalgamation of small schools and development of residential science secondary schools are helping to meet these goals. The report also discusses teacher education and educational media services. (AV)

* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

ED144876

THIRTY-SIXTH SESSION
INTERNATIONAL CONFERENCE ON EDUCATION
GENEVA, SEPTEMBER 1977

NATIONAL REPORT ON DEVELOPMENT OF EDUCATION

1974 - 1976

MALAYSIA

SØ 010 316

PART I: ORGANISATION AND STRUCTURE OF THE EDUCATION SYSTEM

A. General Principles

A special committee was set up in 1956 under the then Minister of Education to review the educational system which was then colonial in nature. The Razak Report, as the report of this special committee came to be known, became the educational policy document of the country. In general, the Razak Report declared that the educational policy of the country was to:

- (i) satisfy the needs of the nation and to promote its cultural, social, economic and political development;
- (ii) follow the general principle of educating pupils in accordance with the wishes of their parents;
- (iii) provide for the progressive development of an educational system in which the national language is the main medium of instruction.

A second committee, the Rahman Talib Education Review Committee, was set up in 1960 to review the policy and its implementation resulting from the Razak Report. Its recommendations were duly incorporated in the Education Act of 1961. This Act is very comprehensive and the present system of education is largely the result of the implementation of the Education Act, 1961.

B. System of Administration

(a) Administration

At the federal level, the Ministry of Education is responsible for the implementation of the educational policy and administration of the entire educational system. As the Head of the Ministry, the Minister of Education is responsible for making decisions on all policy matters either singly or in consultation with his Cabinet colleagues. The Minister is assisted by an Assistant Minister and a Political Secretary. The chief executive officer in the Ministry is the Secretary General, who is directly responsible to the Minister and has an overall control of the administrative and professional functions of the Ministry. The Head of the professional side is the Director General of Education, who advises the Minister and the Secretary General in all professional matters. He is assisted by two Deputy Directors General of Education. Under the Secretary General and Director General there are various divisions which are headed by senior officers. The Head of the administrative side is the Deputy Secretary General.

The operating divisions of the Ministry of Education comprise the following:

Administrative Divisions

- Finance and Accounts Division.
- Development and Supply Division.
- Scholarships and Training Division.
- Establishment and Service Division.
- Administration Division.
- Higher Education Division.
- External Affairs Division.

Professional Divisions

Educational Planning and Research Division.
Schools Division.
Educational Media Service Division.
Teacher Training Division.
Federal Inspectorate of Schools.
Examination Syndicate.
Technical and Vocational Education Division.
Curriculum Development Centre.
Registration Division (Schools and Teachers).
Islamic Religious Schools Division.

At the State level, the State Director of Education is the executive Head through whom the Ministry of Education operates. He implements the Government's educational policy in his State and performs administrative functions relating to registration, examination, finance, scholarship, staffing, etc. He is also responsible for the proper management of all schools. The staff in a State Education Office consists of education officers, organisers, assistant organisers on the professional side and a number of other executive, clerical and lower staff personnel.

The organisational structure of educational administration is given in Appendix I.

(b) Planning

Educational Planning is done at two levels. At the national level, it forms part of the overall economic planning conducted by the National Development Planning Committee which operates through the Economic Planning Unit attached to the Prime Minister's Department. As such, educational planning at this level is correlated with general considerations like economic policies of the country and manpower requirements.

At the Ministry level, planning of education is co-ordinated by the Educational Planning and Research Division and educational plans are submitted to the Educational Planning Committee for consideration and policy decision. This Committee is a high-powered decision making body chaired by the Minister himself, and its functions are mainly to consider and if necessary to approve educational development plans and annual operational plans and budgets for implementation. Being the secretariat to the Educational Planning Committee, the Educational Planning and Research Division maintains close contact and liaison with other divisions of the Ministry of Education, the State Education Departments and other agencies whose work and programmes may have relevance to educational needs.

(c) Finance

The cost of education, both capital and recurrent, is financed mainly from public revenue. Only a very small proportion of the total cost is met by the Education Rates.

The Finance and Accounts Division in the Ministry of Education is responsible for making yearly estimates of recurrent expenditure and for payment of grants to States whereas the Development and Supply Division makes estimates of capital expenditure on education.

Different divisions of the Ministry of Education first send their estimates of expenditure which are examined by the Estimates Committee in the Treasury. The budget is tabled in Parliament some time towards the end of each year after the Treasury has scrutinised every item of expenditure submitted. A ceiling is generally fixed for the total budget of each Ministry by the Cabinet. After the budget is passed by Parliament, expenditure can be incurred by the Ministry directly.

The expenditure on education is given in Table 1.

TABLE 1
EXPENDITURE ON EDUCATION, 1974-1976

Year	Recurrent Expenditure		Capital Expenditure		Total Expenditure	
	Amount (\$ Million)	% Increase	Amount (\$ Million)	% Increase	Amount (\$ Million)	% Increase
1974	1051	30.6	187	31.7	1238	30.7
1975	1158	10.2	212	13.4	1370	10.7
1976*	1474	27.3	261	23.1	1735	26.6

* Estimate

The educational expenditure expressed as a percentage of the national expenditure is given in Table 2.

TABLE 2
PERCENTAGE OF EDUCATIONAL EXPENDITURE AS COMPARED TO
NATIONAL EXPENDITURE, 1974-1976

Year		National Expenditure (\$ Million)		Total Expenditure on Education (\$ Million)		% of Educational Expenditure as compared to the National Expenditure	
1974	...	...	5424	...	1238	...	22.8
1975	...	...	7002	...	1370	...	19.6
1976*	...	...	9207	...	1735	...	18.8

* Estimate

C. Structure and Organisation

The structure of formal schooling in Peninsular Malaysia consists of six years of primary education, three years of lower secondary education, two years of upper secondary education and two years of post secondary education (Form Six education). Pupils enter the school system at Standard One in the primary schools at the age of 6+ years.

Education at the higher level is provided at universities and colleges. The former provide courses of three to six years duration while the colleges provide two to three years courses.

It is the policy of the government that Bahasa Malaysia will be the main medium of instruction in all schools. Beginning with Standard One in 1970, English Medium schools are being gradually converted into Malay Medium schools by stages and by 1983 Bahasa Malaysia will be the main medium of instruction for all courses at the tertiary level.

PRIMARY LEVEL

At the primary level, education is free but not compulsory. Instruction is provided in one of the three language media, namely Bahasa Malaysia, Chinese or Tamil. Pupils advance up the educational ladder from Standard One to Standard Six in the primary schools through the process of automatic promotion.

Common content syllabuses are used for all types of primary schools. This is to ensure that whatever language is used as the medium of instruction, all pupils will follow the same course content in furtherance of the national Malaysian outlook.

Since promotion at the primary level is automatic, each school conducts its own evaluation of its pupils. However, a centralised assessment is conducted yearly for pupils in Grade Three and Grade Five. These assessment tests are designed to measure pupils' attainment so that remedial teaching can be conducted to correct pupil weaknesses in the primary schools before they enter secondary schools.

LOWER SECONDARY LEVEL

On completion of primary education at the age of 11+ years, the pupils are allowed automatic promotion for another three years, i.e. from Form One to Form Three at the lower secondary level. This means that every child is provided with a minimum of nine years of schooling. However, pupils from primary Standard Six in the Chinese and Tamil media schools have to spend an additional year in what is known as the Remove Class before proceeding to Form One. In the Remove Class pupils acquire proficiency in Bahasa Malaysia.

A comprehensive type of education is provided at the lower secondary level. This means that in addition to the academic subjects taught at the lower secondary level, subjects of pre-vocational nature such as industrial arts, home science, agricultural science and commercial studies are also included in the curriculum. It is mandatory for pupils to study at least one of the pre-vocational subjects. The aim of introducing pre-vocational subjects at this level in the curriculum is not to train pupils for special vocational skills but rather to expose them to practical subjects.

At the end of Form Three, i.e. the last stage in the lower secondary level, pupils sit for the Lower Certificate of Education Examination. Depending on their results in this Examination pupils are selected into the upper secondary level and are channelled into the various streams, such as science, arts, technical or vocational.

UPPER SECONDARY LEVEL

Two years of upper secondary education is provided to pupils selected on the basis of the results of the Lower Certificate of Education Examination. As mentioned earlier, pupils at this level are divided into academic (arts or science), technical or vocational streams.

Pupils in the vocational schools are given courses in the various disciplines, such as, engineering trades, commerce, home science or agriculture. This is done with the view of developing manipulative skills, imparting technical knowledge and developing attitudes and habits necessary for employment in the commercial and industrial world.

At the end of the two years in the vocational schools, pupils sit for the Malaysian Vocational Certificate of Education Examination. This gives them entry into the employment market. Besides, pupils who are successful in the examination are also eligible for consideration for further training in the relevant fields in our Polytechnics.

Pupils in the academic (arts or science) and technical streams sit for the Malaysian Certificate of Education Examination, at the end of the two years in the upper secondary level. Apart from providing entry qualifications for posts in the public and private sectors, the examination is also utilised as a basis of selecting candidates in the post secondary level (Form Six) or for entry into the various courses at higher educational institutions, e.g. the MARA Institute of Technology or into pre-university courses overseas.

POST SECONDARY LEVEL

Two years of post secondary education is provided to pupils selected on the basis of their performance in the Malaysian Certificate of Education Examination. The pupils at this level are streamed into either the arts or science disciplines.

At the end of the two years, pupils sit for the Higher School Certificate Examination. This examination serves as a basis for selecting entrants into universities. It is also a qualification for appointment into the government service and the private sector.

The structure of education is given in Appendix II.

D. Curricula

The Curriculum Development Centre of the Ministry of Education is charged with the responsibility of stabilising and systematising curriculum development for all levels of the school system. It also looks into the improvement of the quality of education offered in schools and to make the school curricula more relevant and effective for achieving national educational objectives.

The Centre has the following main functions:

- (i) to identify national needs and aspirations and to translate them into curricula specifications;
- (ii) to conduct curriculum research and experimentation;
- (iii) to plan and develop curricula programmes for continuous, systematic and qualitative development in education;
- (iv) to develop and produce curricula materials such as syllabuses, teacher guidelines, pupil learning materials, evaluation instruments, audio-visual aids and prototype science and other equipment;
- (v) to set up Teachers' Centres for the dissemination of curricula information and for the offering of in-service training for teachers in the use of specific curricula programmes and materials.

BASIC SUBJECTS TAUGHT, COMPULSORY AND OPTIONAL, AT EACH LEVEL

PRIMARY LEVEL

Compulsory

1. National Language (Malay)
2. English
3. Mathematics
4. Science
5. Art and Craft
6. Physical Education
7. Health Education
8. Civics/Local Studies
9. History
10. Geography.

Optional

1. Islamic Religious Knowledge
2. Chinese (for Chinese Medium Schools)
3. Tamil (for Tamil Medium Schools).

LOWER SECONDARY LEVEL

Compulsory

1. National Language (Malay)
2. English
3. Mathematics
4. Science
5. Art and Craft/Music
6. Physical Education
7. Health Education
8. Civics
9. History and Geography/Social Studies.

Optional

1. At least one of the following:
 - (a) Industrial Arts
 - (b) Home Science
 - (c) Commerce
 - (d) Agricultural Science
2. Islamic Religious Knowledge
3. Other Religious Studies
4. Other Languages
5. Technical Drawing
6. Other Subjects as approved by the Registrar of Schools.

UPPER SECONDARY LEVEL

(a) ARTS STREAM

Compulsory

1. National Language (Malay)
2. English
3. Mathematics/Additional Mathematics
4. General Science/Double Credit Science
5. Art and Craft/Music
6. Health Education
7. Civics
8. History
9. Geography.

Optional

1. Islamic Religious Knowledge
2. Other Religious Studies
3. Other Languages
4. Vocational Subjects, e.g. Metalwork, Woodwork, Cookery, Needlework
5. Other subjects as approved by the Registrar of Schools.

(b) SCIENCE STREAM

Compulsory

1. National Language (Malay)
2. English
3. Mathematics/Additional Mathematics
4. Physics
5. Chemistry
6. Biology
7. Health Education
8. Civics
9. Geography.

Optional

1. Islamic Religious Knowledge
2. Other Religious Studies.
3. Other Languages
4. Other Subjects as approved by the Registrar of Schools.

(c) TECHNICAL SCHOOLS

The following subjects are available:

1. National Language (Malay)
2. English
3. Mathematics/Additional Mathematics
4. Engineering Science
5. Physical Science
6. Physics
7. Chemistry
8. Surveying
9. Civics
10. Mechanical Workshop Theory
11. Technical or Building Drawing
12. Agricultural Science
13. Commerce
14. Principles of Accounts.

Islamic Religious knowledge is compulsory for All Muslim pupils.

(d) VOCATIONAL SCHOOLS

Four main areas of courses are provided, nameily:

Engineering Trades

1. Electrical Installation and Maintenance
2. Radio, TV and Electronics Servicing
3. Fitting and Machining
4. Sheetmetal Work and Welding
5. Woodworking and Building Construction
6. Motor Mechanics
7. Air Conditioning and Refrigeration.

Agriculture

1. Crop Production
2. Ornamental Horticulture
3. Soil Management
4. Livestock Production
5. Farm Management
6. Farm Tools and Machinery.

Commerce

1. Pitman Shorthand or Book keeping
2. Commercial English
3. Commercial Practice
4. Typewriting.

Home Science

1. Course A: Nutrition, Cookery and Cottage Industry and Catering, Housecraft, Mothercraft and Child Care, Elements of Commerce
2. Course B: Needlework and Tailoring, Beauty Culture and Hairdressing, Laundrywork, Elements of Commerce

Besides the vocational courses, one third of the time is spent on general education subjects: English, Malay, Mathematics, Science, Social Studies. Islamic Religious Knowledge is compulsory for all Muslim pupils.

POST SECONDARY LEVEL (FORM SIX)

(a) ARTS STREAM

The following subjects are available:

1. National Language (Malay)
2. English
3. General Paper
4. Geography
5. History
6. Art
7. Economics
8. Mathematics
9. Other Subjects as approved by the Registrar of Schools.

(b) SCIENCE STREAM

The following subjects are available:

1. National Language (Malay)
2. English
3. General Paper
4. Physics
5. Chemistry
6. Botany
7. Zoology
8. Mathematics
9. Other Subjects as approved by the Registrar of Schools.

E. Teacher Education

The pre-service training of teachers for the primary and lower secondary schools is conducted wholly in teacher training colleges run by the Ministry of Education. The minimum entrance qualification of the teacher training colleges is a pass in the Malaysian Certificate of Education/Malaysian Vocational Certificate of Education with a credit in Bahasa Malaysia and two more credits in other subjects. The upper age limit for the candidates seeking admission is 25 years. However, candidates with 3 years teaching experience or with full HSC qualification may be considered for admission provided they are less than 30 years old.

A recent development in the teacher education system was the introduction, in 1973, of a two-year Integrated Teacher Training Programme for primary and lower secondary schools. Among the several considerations for the formulation of this scheme was the recognition of the need to develop mobility among teachers through the primary and lower secondary schools. Under this scheme, two groups of teachers are trained, namely: students trained to teach from Standard One through Form One (Group A); students trained to teach from Standard Four through Form Three (Group B). During the first year of training, students undergo a common course on Middle Childhood Education. In the second year, Group A students pursue Early Childhood Education which includes exposure to pre-school education while Group B students pursue Early Adolescence Education. The scheme does not include the training of teachers for technical/vocational subjects. Industrial Arts teachers are trained through a two-year course and Trades teachers for vocational schools through a three-year course in the Technical Teachers' Training College.

Teachers for upper secondary and post secondary classes are trained mainly at the Faculty of Education, University of Malaya for a one-year post-graduate course for the Diploma in Education. In order to increase the output of science graduate teachers, the University of Malaya and the Science University have started to award the degree of Bachelors of Science in Education, and the University of Technology and University of Agriculture have also introduced special courses to produce more such teachers.

Besides the pre-service programme, the Teacher Training Division of the Ministry of Education is responsible for the management of in-service training at all levels of the school system, both at term-time and during school vacations.

PART II: DEVELOPMENT OF EDUCATION

F. New Policy Orientations

(a) *National Policy*

The over-riding goal of the country is national unity. The economic and social development of Malaysia have been attained to a level where greater emphasis is now being directed towards social integration and more equitable distribution of income and opportunities for national unity and progress.

As such, the overall national plan of the country as stated in the New Economic Policy spells out two basic strategies. Firstly, it is aimed at reducing and eventually eradicating poverty by raising income levels and increasing employment opportunities for all Malaysians, irrespective of race. Secondly, it is aimed at accelerating the process of restructuring Malaysian society to correct economic imbalance so as to reduce and eventually eliminate the identification of race with economic function.

(b) *National Objectives of Education*

The major objectives of education and training as spelled out by the government are as follows:

- (i) to consolidate the education system and to promote national integration and unity;
- (ii) to orientate and expand the education and training programmes towards meeting the manpower needs of the country;

- (iii) to improve the quality of education for the building of a progressive society oriented towards modern science and technology;
- (iv) to improve research, planning and implementation capabilities to meet the above stated objectives.

(c) Specific Objectives of Education

With the national objectives of education as guidelines, it is envisaged that the Ministry of Education, as a matter of priority, will channel its efforts and resources to promote national integration and unity through the successful implementation in stages of the National Language (Bahasa Malaysia) as the main medium of instruction in schools. At the same time, the Ministry of Education will also direct its resources to ensure that there shall be improvement in educational facilities in the rural areas so as to correct the imbalance in educational opportunities between rural and urban areas.

In particular, the specific priority areas in education that need special attention and consideration are spelled out as follows:

- (i) to consolidate further the national educational system in order to promote social, cultural and national unity;
- (ii) to provide educational facilities for increased enrolments at all levels of education occasioned by the increasing trend in population and the improvement in transition rates throughout the system;
- (iii) to enhance the quality of education at all levels through the improvement in curriculum content, methods, organisation and other supporting services;
- (iv) to place special emphasis on the sciences, technology and vocational education;
- (v) to provide trained teachers in sufficient numbers and of the highest attainable quality to meet the requirements of growth and qualitative improvement at all levels, including the in-service training of teachers;
- (vi) to spread the educational opportunities more evenly throughout the country so as to correct the imbalance between the urban and rural areas, the rich and the poor.

G. Development of the System

(a) Quantitative Development

Having described the general structure of the educational system, it is relevant to indicate some of the pertinent data which reflect the development of the educational system as a whole.

ENROLMENT RATIO

Based on the total relevant age-group population, enrolment ratios at the various levels of education are as follows:

	1974	1975	1976
Primary level	90.5 %	96.0 %	96.3 %
Lower secondary level	65.1 %	69.5 %	71.9 %
Upper secondary level	28.5 %	32.7 %	34.5 %
Post secondary level	2.8 %	3.5 %	3.9 %

TRANSITION RATE

The percentage of pupils continuing their education from one level of education to another is as follows:

	1973/74	1974/75	1975/76
Primary to lower secondary ...	79.8 %	82.3 %	85.0 %
Lower to upper secondary ...	62.4 %	65.0 %	62.0 %
Upper to post secondary ...	14.3 %	13.7 %	15.8 %

PERCENTAGE DISTRIBUTION BETWEEN ACADEMIC (ARTS AND SCIENCE), TECHNICAL AND VOCATIONAL STREAMS AT THE UPPER SECONDARY LEVEL.

At the upper secondary level, pupils are channelled into the academic, technical or vocational streams. The percentage distribution between such streams is as follows:

	1974	1975	1976
Academic (arts and science) ...	92.5 %	91.8 %	85.8 %
Technical ...	2.3 %	2.5 %	4.6 %
Vocational ...	5.2 %	5.7 %	9.6 %

PERCENTAGE DISTRIBUTION BETWEEN ARTS AND SCIENCE STREAMS AT THE POST SECONDARY LEVEL

Pupils at the post secondary level follow a two-year course in either the arts or science stream. The percentage distribution between these streams is as follows:

	1974	1975	1976
Arts ...	46.9 %	48.2 %	53.0 %
Science ...	53.1 %	51.8 %	47.0 %

ENROLMENT BY TYPES AND LEVELS OF EDUCATION

The quantitative development in the education system according to types and levels of education is given in Table 3.

TABLE 3
QUANTITATIVE DEVELOPMENT OF THE EDUCATIONAL SYSTEM BY LEVEL
AND TYPE OF EDUCATION, 1974-1976

Level and Type of Education	Enrolment			% Increase for period 1974 to 1976	% Enrolment according to level of Education		
	1974	1975	1976		1974	1975	1976
Primary level ...	1,547,331	1,586,909	1,602,635	3.6	68.6	67.1	65.8
Lower secondary level ...	518,001	561,471	597,720	15.4	23.0	23.7	24.5
Upper secondary level ...	142,463	164,727	175,992	23.5	6.3	7.0	7.2
Academic (Art & Sc.) ...	132,319	153,415	162,808	23.0	—	—	—
Technical ...	3,387	3,683	4,295	26.8	—	—	—
Vocational ...	6,757	7,629	8,889	31.6	—	—	—
Post secondary level ...	13,889	16,335	19,369	39.5	0.6	0.7	0.8
Arts ...	6,512	7,880	10,265	57.6	—	—	—
Science ...	7,377	8,455	9,104	23.4	—	—	—
Teacher Training ...	5,657	6,182	8,616	52.3	0.3	0.3	0.4
College level ...	13,654	15,621	16,600	21.0	0.6	0.7	0.7
University level ...	12,984	14,063	15,805	21.7	0.6	0.5	0.6
GRAND TOTAL ...	2,253,979	2,365,308	2,436,737	88.1	100	100	100

(b) Educational Development: Problems and strategies

PROBLEMS

It is recognised that the most pressing problem in educational development is to consider what education can do to hasten the social, political and economic development of Malaysia which is a multi-racial and multi-lingual country. As such, the fostering of a national consciousness and unity among the various races at all levels of the society and the redressing of the economic imbalances so as to provide equal educational opportunities for Malaysians in less favourable circumstances should be the main and over-riding objective of the education system.

One of the main problems facing the Ministry of Education is the sheer increase in the number of pupils seeking education at the various levels in the school system. This is further aggravated by the fact that we have to seek a proper balance between general and technical/vocational education. Even within the general education itself, we must strike the right balance between arts and science.

Although promotion is automatic for the first nine years of schooling; i.e. from Grade One to Form Three (Grade Nine), it is observed that at each stage there is the dropout problem. Ideally, we should aim at a 100% transition rate during the first nine years of schooling. The highest dropout rate is from primary to lower secondary schooling and much of this wastage occurs in the rural areas. While we seek to reduce this wastage and to provide equal opportunities for all, we must at the same time consider carefully how large we want our educational pyramid to grow. We must particularly guard against the overproduction of school leavers with purely academic backgrounds.

We also face the problem of having to improve the quality of education particularly with regard to the upgrading of under-qualified teachers and development in curriculum. There are also problems of quality which are most severe in the rural areas. Hence, at all levels of education there is the need to intensify our efforts in narrowing the gap, in terms of educational facilities, between the rural and urban schools. This requires not merely putting up buildings and providing facilities but also the improvement in quality as a whole. This will be a costly undertaking but the Ministry of Education is convinced that the benefits—in terms of national development and unity—will far outweigh the costs.

STRATEGIES

In general, the strategies adopted by the Ministry of Education can be considered as being two-fold; firstly, to discover and identify the problems in their perspective and, secondly, to provide the best possible solutions by taking into account the constraints of the resources available. Most of the new developments in education, be it quantitative or qualitative, reflect the attempt to provide possible solutions that are designed to solve specific problems.

In our attempts to effect changes and improve the quality of education, numerous programmes and new approaches have been introduced into our education system.

Some of the major educational developments are as follows:

(i) Amalgamation of small schools

The primary school as part of the education system plays a very critical role in providing basic knowledge and experiences which could influence the direction of an individual's choice of whether to continue studying or

his opinion as to whether what he can acquire in the primary school has any bearing for his future. It is the intention of the Ministry of Education to ensure that pupils from all areas have an equal opportunity to benefit from our educational system. In this connection, the Ministry of Education is adopting two approaches with regard to the small uneconomic schools, namely:

- where possible small schools need to be combined to form a more viable educational unit. This may involve the provision of hostel facilities and/or transportation for pupils to a more distant school.
- in cases where such groupings of small schools is not possible, the Ministry of Education is considering an amendment to the system of allocation of funds and teachers to small schools. This however, is done with the realisation that it will make small schools appear even more costly.

(ii) *Fully residential science secondary schools*

The imbalances of educational opportunities of disadvantaged groups, particularly the rural children and the poor, has been a major social and political problem. The setting up of Fully Residential Science Schools is one way of overcoming the problem. Ten such schools are at present in existence in suitable locations to provide added educational opportunities for pupils in the rural areas to pursue their education in the science and technical fields. The objectives of establishing such schools are:

- to increase the enrolment of pupils taking up science;
- to open up more avenues for pupils in the rural areas to attend secondary schools which have a greater orientation in science subjects;
- to pool and concentrate resources to teach science and technological subjects;
- to provide impetus for the creation of personnel in the country highly oriented in science and technology.

(iii) *Teacher training*

The Teacher Training Division of the Ministry of Education sets out two guiding principles in its approach to the training of teachers. Firstly, there is the need to provide as many trained teachers as possible to meet the growing school population both at the primary and secondary levels. Secondly, there is the need to train relevant teachers in terms of their adequacy for certain subjects, particularly in science, mathematics and technical subjects.

A new approach has also been adopted in giving in-service courses. This approach involves the training of key personnel who will subsequently undertake to train other teachers at the state or district levels. As a result, the demands on financial and personnel resources have reduced drastically.

The main objectives of in-service teacher education are as follows:

- to upgrade the academic and professional knowledge and experience of teachers in various subject disciplines;

- to orientate teachers towards new developments in teaching methods and techniques;
- to assist teachers to gain proficiency in the use of Bahasa Malaysia as the main medium of instruction;
- to upgrade the competency of teachers of English as a second language;
- to provide an introduction to school administration and management for head-teachers and organisers of schools.

With the emphasis on the teaching of science and mathematics, crash science teacher training programmes are being conducted at the University of Agriculture and at the University of Technology. This crash programme is to increase the output of graduate teachers of science and mathematics in addition to the normal output of graduate teachers by the other universities.

(iv) *Curricula*

The major areas of activity have been in Language, Compensatory Education, Primary Mathematics and Science and Social Studies.

The chief aim of the Bahasa Malaysia (the National Language) curriculum development activities has been to give pupils in schools the necessary skills to acquire mastery of the language so as to use it as their first language and as an effective medium of instruction for all subjects. Concurrent with this aim, the Curriculum Development Centre of the Ministry of Education (C.D.C.) has made positive efforts to make the learning/teaching of Bahasa Malaysia keep in step with the trends in language teaching and with the on-going processes of standardisation and modernisation of the Language. A revised Bahasa Malaysia syllabus for secondary schools was introduced on a trial basis in 1976 and by 1978 the evaluated and revised version will be implemented in schools.

A necessary shift has been made in the teaching of English Language in schools to ensure the effectiveness of English as a second language rather than as the medium of instruction. To implement this, the new Communicational Syllabus for English at secondary school level was drawn up to enable pupils in schools to communicate effectively, and in this way prepare them for the world of work.

Among the research projects undertaken in the language teaching area are the attempts at determining weaknesses in the reading ability of school children in both Bahasa Malaysia and English.

The Second Malaysia Plan (1971-1975) identifies "Closing the gap in educational opportunities among regions and races" as one of the main programmes in respect of national integration and unity. The report on the "Study of Opinion about Education and Society" (1973), (better known as the Drop-out Study), makes the following point: "Compensatory Educational service should be provided to help remedy early educational disadvantages". Well aware of the problem of educational deprivation of socially deprived communities and the problem of the existence of learning difficulties among primary school children, the C.D.C.

has undertaken a compensatory education project. This project has three inter-related components: the pre-school component, the lower primary school component, and the social action/intervention component. The objectives of this project are to:

- (i) develop curriculum materials for disadvantaged pre-school children;
- (ii) set up pre-school centres to compensate identified environmental deprivation;
- (iii) devise diagnostic tests to detect and remedy learning problems of lower primary school children;
- (iv) generate school-home-community involvement in providing an enriched environment for disadvantaged children.

Ultimately the major goal of compensatory education is to develop general strategies for prevention rather than remedial education.

In an attempt to seek immediate measures to improve the quality of Science and Mathematics teaching in primary schools the C.D.C. has produced materials introducing teaching approaches utilising the familiar substantive content but aiming clearly at getting the pupils to interact directly with the primary sources of knowledge wherever possible, so as to gain educational experiences with minimal teacher-intervention. The Primary Science and Mathematics unit of the C.D.C. has produced guide sheets for Std. I through Std. VI.

The Social Studies unit of the C.D.C. has made significant strides in revising and renovating the History curriculum for primary and secondary schools. Based on the Rukunegara (the National Ideology), the new History syllabus has nation building as the core-concept. The contents of the syllabus attempt to promote the skills of historical thinking and create in the pupils a consciousness of national characteristics and a sense of belonging to the Malaysian society and nation. To do this an Asia-centric interpretation in general, and a Malaysia-centric interpretation in particular, has been adopted to understand and analyse historical events hitherto seen from an Europe-centric stand.

A workshop for teachers, headmasters and textbook writers was organised by the Centre in May 1976 in order to review the draft syllabus for History and to discuss methods which could best be used to achieve the objectives of the syllabus through child-focussed, activity-oriented teaching and learning. A source-book is currently being prepared by the C.D.C. to assist teachers to better understand the new approach to history in schools.

The C.D.C. is well aware that renovation of syllabi, production of teaching-learning materials and the creation of diagnostic tools and remedial programmes can only succeed with the corresponding teacher re-education. To achieve this the C.D.C. has been initiating teacher in-service programmes and also participating in those organised by other Divisions of the Ministry.

(v) *Educational Media Services*

The main function of the Educational Media Service Division of the Ministry of Education is to implement the Ministry's policy and objectives through ETV, Radio and AVA. This is done through:

- planning and production of programmes for broadcast to schools through radio and TV;
- planning production and distribution of AVA materials to schools and institutions;
- equipping and organising a film library service and loan of educational films, film scripts and AVA materials to schools and other institutions.

The TV programmes that are telecast and other policy matters are decided by an Advisory Committee under the chairmanship of the Director-General of Education with representatives from the various divisions of the Ministry of Education and from the Ministry of Information and Ministry of Communication. The Education TV Service began in 1972 with only 6 series of programmes for secondary schools. In 1973 the programmes increased to 14 including programmes for primary schools. In 1974 the series of programmes further increased to 24, in 1975 to 30, and in 1976 and additional 3 series were begun. In order to ensure that all schools are able to receive the TV programmes, a total of 5,500 TV sets and 2,500 generators have been distributed to schools.

Educational Radio broadcasts its programmes in various languages, i.e. Bahasa Malaysia, English, Mandarin and Tamil. The subjects involved are wide-ranging. They include languages, literature, music, social studies, religion and civics. Apart from this, Educational Radio producers not only formulate programmes based on the school syllabuses but also general programmes such as "World of Education"—a programme for parents and teachers, which indicates the various changes and progress in the field of education; "Students World"—a programme for pupils about matters and incidents occurring in the student world.

In 1974 a loan agreement between Malaysia and the World Bank was signed involving a loan of \$8 million. This is for the extension of the Educational Radio and TV Service to Sabah and Sarawak. Educational Radio was started in Sabah in early 1975 and Educational TV in Sabah and Sarawak in August 1976.

(vi) *Technical and vocational education*

The Ministry of Education provides technical and vocational education to suitable pupils who have completed their lower secondary education. The courses offered in the vocational schools are in the areas of engineering trades, agriculture, commerce and home science while the technical schools provide courses in building, mechanical, commerce and agricultural science. In 1974 there were 8 technical schools and 19 vocational schools. In 1976 and additional technical school and two additional vocational schools were built, making an overall enrolment of 4,295 pupils in technical education and 8,889 pupils in vocational education.

The training of technicians and junior executives in the engineering and business enterprises respectively is being conducted at the Ungku Omar Polytechnic in Ipoh which was established in 1969. It provides two-year full time courses in engineering technologies and business studies and a three-year course in accountancy.

A second polytechnic was established in Kuantan in 1976. As a start, three courses were introduced. They are electrical engineering, civil engineering and mechanical engineering. In 1974 the intake into the Ungku Omar Polytechnic was 657. In 1976, with the establishment of a second polytechnic, the total intake has increased to 717.

H. Educational Finance

(a) Development cost

The development expenditure during the Second Malaysia Plan period (1971-1975) was \$573.8 million. For the Third Malaysia Plan period (1976-1980), \$1,430 million is allocated for development expenditure, giving a 149.2% increase over the Second Malaysia Plan period.

The percentage distribution of development expenditure according to level and type of education is as follows:

Level/type of education							% allocation of development expenditure
Primary	...	...	...	...	...	...	24.8
Secondary	...	...	...	...	...	...	26.1
Technical and Vocational	...	...	...	...	...	...	4.5
Hostels	...	...	...	...	...	...	1.7
Teacher training	...	...	...	...	...	...	6.1
College level	...	...	...	...	...	...	5.1
University level	...	...	...	...	...	...	27.9
Other programmes	...	...	...	...	...	...	3.8

(b) Cost per pupil

As a pupil moves on to a higher level of education, the cost per pupil will increase. The cost per pupil is estimated as follows:

Level/type of education						cost per pupils
Primary school	...	...	...	...	...	\$ 240
Secondary school	...	...	...	...	...	345
Technical/Vocational school	...	...	...	...	...	950
Residential school	...	...	...	...	...	2,200

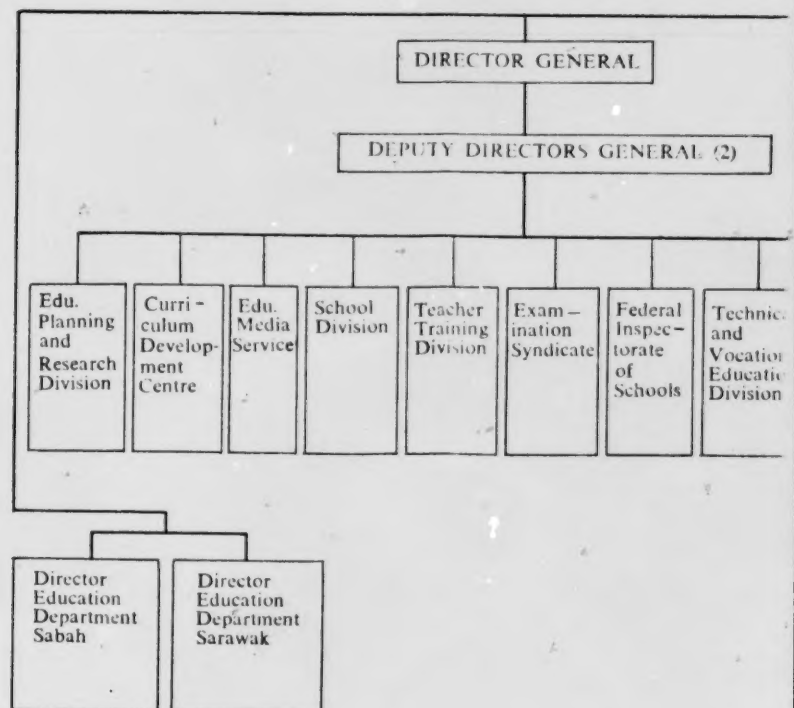
As more and more places are provided for lower and upper secondary education, the cost of education will be increased gradually.

In addition to the trend towards more secondary enrolment, other factors will tend to increase average costs. For example, the emphasis on science, technical and vocational streams as against the arts stream will tend to increase costs. Furthermore, it is envisaged that more residential places will be required in secondary schools in order to improve the opportunities for rural pupils. Coupled with these, all our efforts to improve the quality of education, especially the upgrading of the qualifications of teachers, will definitely increase costs.

As the educational expenditure is relatively big compared to other Ministries, the Ministry of Education realises the necessity of taking measures not only to effect economies but also to improve the quality of education so as to get the maximum benefit. Wherever possible, the Ministry of Education realises that efforts must be made to optimise the utilisation of resources with a view to achieving the maximum benefit.

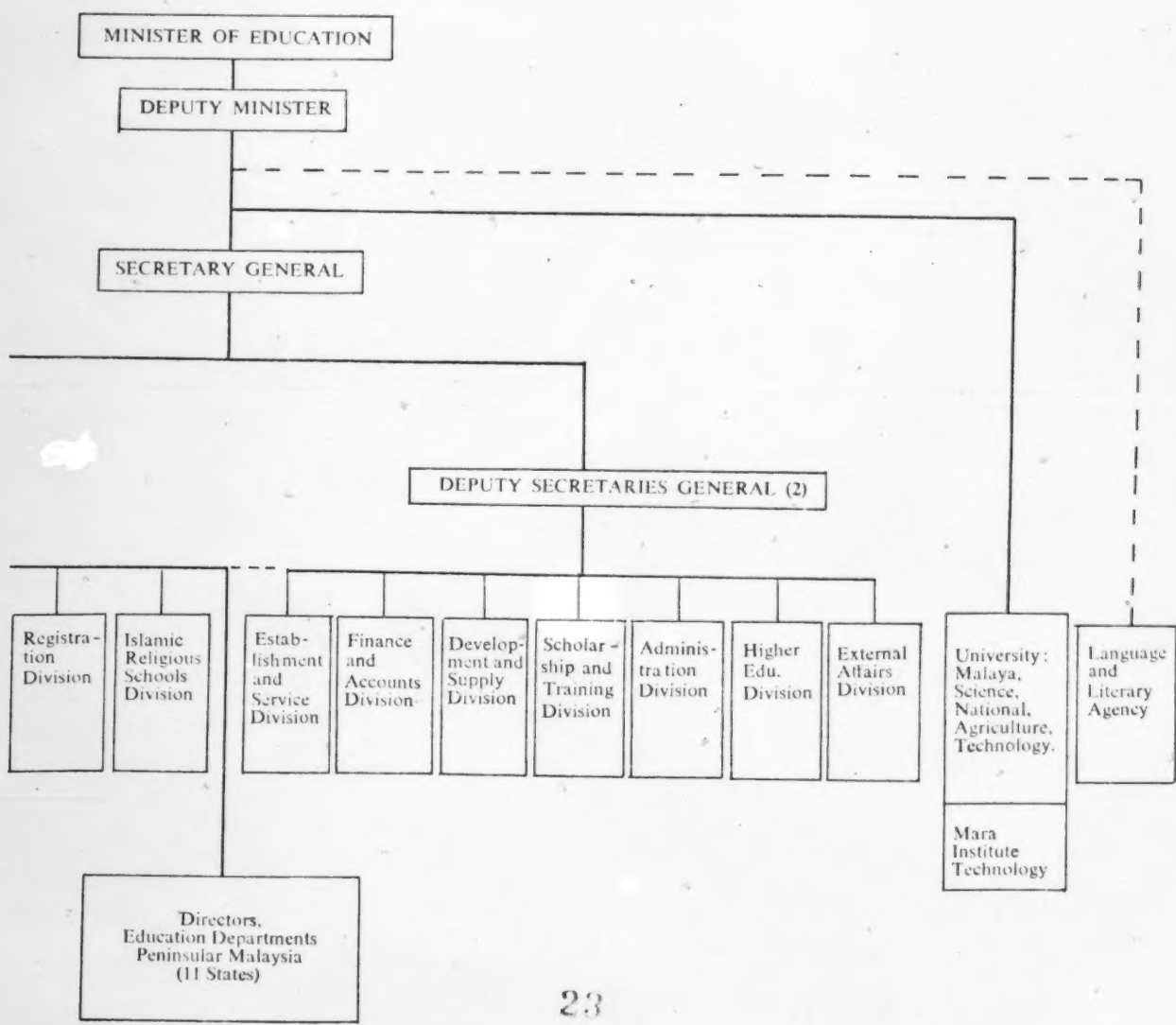
Appendix I

20



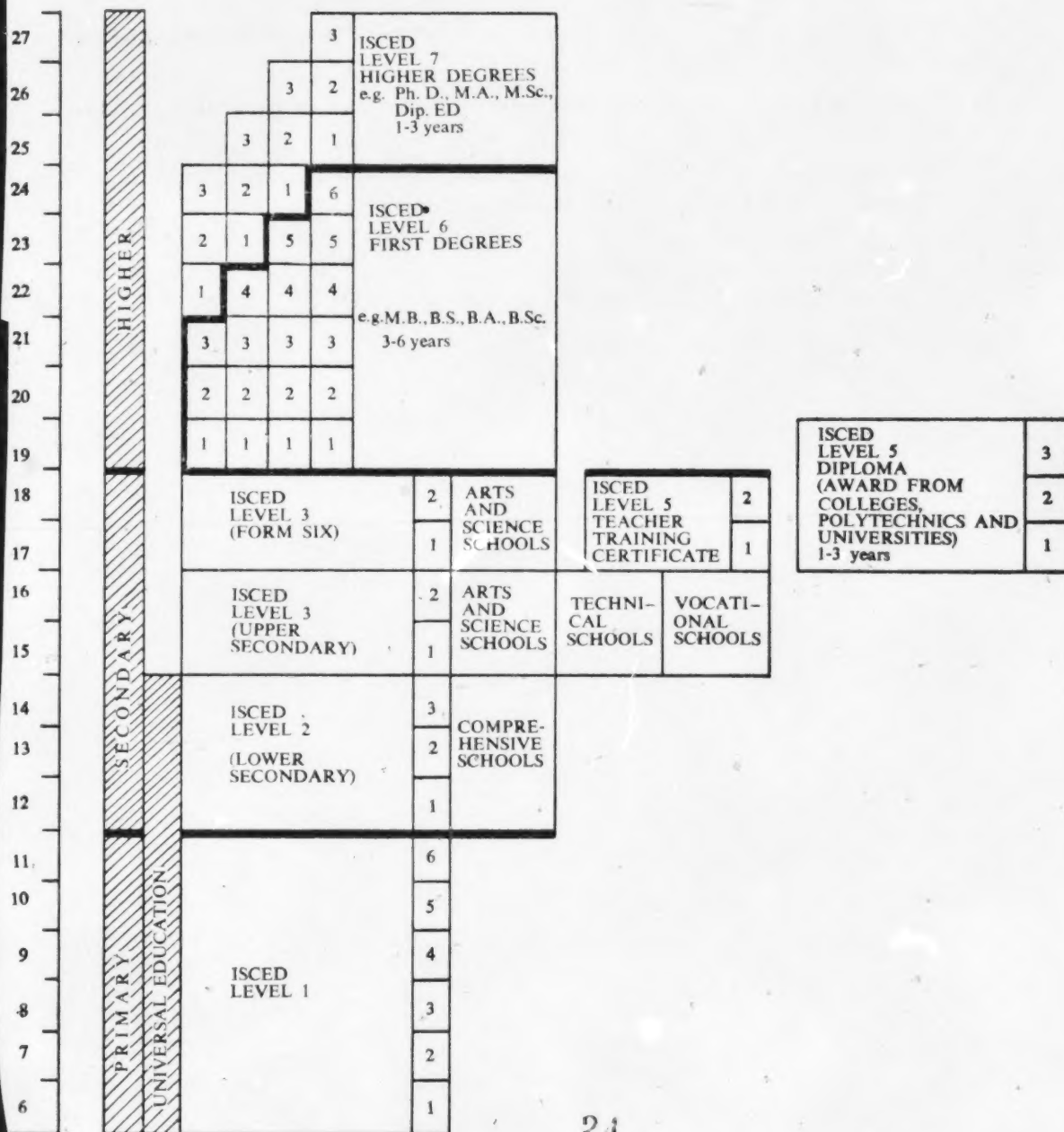
STRUCTURE—MINISTRY OF EDUCATION MALAYSIA

APPENDIX I A



ORGANISATION CHART
FORMAL SYSTEM OF EDUCATION

Expected ages
as at 1st January



LIST OF MAIN OFFICIAL PUBLICATIONS RELATING TO
EDUCATION AND ISSUED DURING 1974/75 AND 1975/76

1. Educational Planning and Research Division Journal, 1974. Published by Dewan Bahasa dan Pustaka, Kuala Lumpur.
2. Educational Statistics of Malaysia, 1973. Published by Jabatan Cetak Kerajaan, Kuala Lumpur.
3. Education in Malaysia, 1974. Published by Dewan Bahasa dan Pustaka, Kuala Lumpur.
4. List of Schools in Peninsular Malaysia, 1974, 1975 and 1976. Published by Jabatan Cetak Kerajaan, Kuala Lumpur.
5. Report on the "National Seminar on the Development of Education, To-day and To-morrow", 1974.
6. Mid-Term Review of the Second Malaysia Plan (1971-1975):
 - (a) Agricultural Education in secondary schools;
 - (b) Teacher Education;
 - (c) Science and Mathematics;
 - (d) Teaching of English and Bahasa Malaysia.